BEE LINE WATER ASSOCIATION (PWS# 1110001)
SOURCE WATER ASSESSMENT REPORT

February 20, 2003

State of Idaho
Department of Environmental Quality

Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for Bee Line Water Association*, describes the public drinking water sources; the recharge zones and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The Bee Line Water Association is a community water system serving a population of 440 rural residents north of Bonners Ferry in Boundary County Idaho. Meadow Creek is the primary source of drinking water for the system. Bee Line acquired sole ownership of two ground water wells in the summer of 2001 that are part of the Hops wellfield Bee Line and Three Mile Water District received jointly from Anheuser Busch in 1998.

Like all surface water sources, Meadow Creek is highly susceptible to naturally occurring microbial contamination. Susceptibility to other classes of regulated contaminants is low because the Meadow Creek watershed above the intake is undeveloped forest. The Hops wells ranked moderately susceptible to contamination. The well logs are not on file with DEQ, so several factors used to assess vulnerability to contamination are unknown, and were scored conservatively.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Bee Line Water Association, drinking water protection for the Meadow Creek Source means protecting the watershed, especially from road building, logging or recreational activities that increase turbidity of the water. For the Hops wellfield, protection efforts should focus on preventing ground water contamination from agricultural land use.

SOURCE WATER ASSESSMENT for BEE LINE WATER ASSOCIATION

Section 1. Introduction - Basis for Assessment

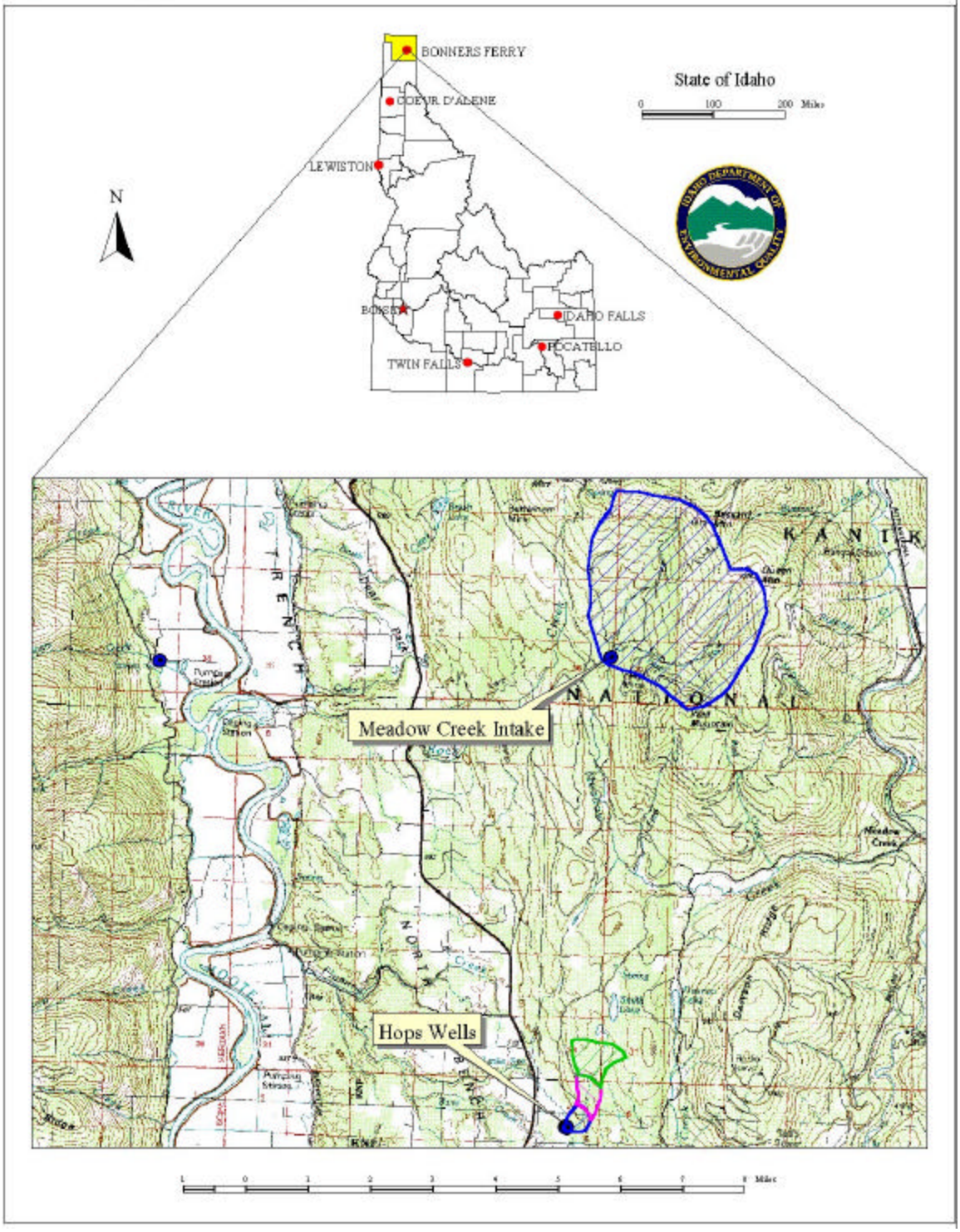
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** Maps showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The water Susceptibility Analysis Worksheets used to develop this assessment is attached.

Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system. The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Bee Line Water Association



Section 2. Preparing for the Assessment

Defining the Zones of Contribution - Delineation

The delineation process establishes the physical area around a well or surface water intake that will become the focal point of the assessment and protection efforts. For wells, the process includes mapping the boundaries of the well recharge area into time of travel (TOT) zones indicating the number of years necessary for a particle of water flowing through the aquifer to reach a well. To protect surface water systems from potential contaminants, the EPA required that the entire drainage basin be delineated upstream from the intake to the hydrologic boundary of the drainage basin (U.S. EPA, 1997b).

The Meadow Creek delineation was drawn on a 7.5 minute U.S. Geological Survey Map by tracing the ridge lines that define the basin above the intake structure. The delineation encloses about 4500 acres (Figure 2).

The Hops wellfield consists of 7 wells, including 4 that were recently drilled and are known to be about 125 feet deep. The wells are completed in glacial and other sediments located at the base of uplands comprised of fractured metasediments. Bee Line owns 2 of the 3 original wells in the Hops wellfield. Because the wells are close together and pumping from a common source they have a common delineation.

The WHAEM analytical ground water flow model was used to determine the location of the wellfield recharge zone and Time of Travel zones illustrated in Figure 3. The simulated three year TOT extends to the east and abuts the fractured metasediment terrain. Because of the mountainous terrain and significant uncertainty regarding ground water flow in fractured rock, the six and ten year TOT were derived using local topography and the dimensions of the three year TOT as a guide. The focus in locating these other two time of travel zones was on the one significant stream emanating from the uplands in this vicinity with the potential for focussed recharge. The orientation of the resulting TOT ranges from northeast to east, with the assumption being that the ground water system is moving toward the Kootenai River as a final discharge location.

Identifying Potential Sources of Contamination

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of water contamination. Inventories for all public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources within a system's source water assessment area through the use of computer databases and Geographic Information System maps developed by DEQ. Maps showing the delineations and tables summarizing the results of the database search were then sent to system operators for review and correction during the second or enhanced phase of the inventory process.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation.

Section 3. Susceptibility Analysis

The susceptibility to contamination of all water sources in Idaho is being assessed on the following factors:

- physical integrity of the well or surface water intake,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The susceptibility analysis worksheets for Meadow Creek and Hops wellfield, Attachment A, show in detail how the sources were scored.

System Construction

Meadow Creek. The construction of surface water intakes affects their ability to remove debris and to provide some filtration prior to treatment. Sanitary surveys provided information for this portion of the susceptibility analysis.

The Meadow Creek intake is located off Forest Road 2499 about 8 miles above the treatment plant on Camp 9 road. Bee Line Water Association has a water right granting annual appropriation of 0.8 cfs up to a maximum of 144 acre feet per year. The diversion includes a control structure, sedimentation basin and screened collection gallery. Screens were recently replaced with a stainless steel assembly. A 4-inch steel transmission line carries water to the treatment plant.

Hops Wells. Well construction directly affects the ability of a well to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system. Well logs for the Bee Line Water Association wells are not on file with DEQ. The most recent sanitary survey of the system was in April 2002.

When the Hops wellfield was divided in the summer of 2001, Bee Line received 2 of the original 3 Anheuser Busch Hops wells. The south well owned by Bee Line is approved for use. The northeast well is not currently hooked into the system. The south well has a 10-inch casing that reaches a depth of 106 feet. It is fitted with a 9-foot screened intake, a pitless adapter and well cap. A new pump, electrical panel and controls have been installed since acquisition of the well. The pump is set at 92 feet. Static water level in the well is 26.25 feet below land surface. At the time of the sanitary inspection the system was planning to install a flow meter, chlorination equipment and stannous chloride corrosion control.

Hydrologic Sensitivity

The susceptibility analyses for ground water sources includes assignment of hydrologic sensitivity scores that reflect natural geologic conditions at the well site and in the recharge zone. Information for this part of the analysis is derived from individual well logs and from the soil drainage classification inside the delineation boundaries. The Hops wellfield scored 5 points out of 6 points possible in this portion of the susceptibility analysis.

Soils in the 3-6 and 6-10 year time of travel zones are classed as moderately well to well drained. Soils that drain rapidly are deemed less protective of ground water than slow draining soils. About half of the 0-3 year time of travel zone, including the part where the wells are located, is covered by poorly drained soils that inhibit the migration of contaminants toward the wells. Driller's reports for wells in the vicinity show silt, clay and some fine sand above the water table. First water was encountered in these wells at depths varying from 24 to 63 feet below the surface.

Potential Contaminant Sources and Land Use.

Meadow Creek. The dominant land use in the Meadow Creek Watershed is undeveloped forest. The watershed is crossed by forest roads and contains three inactive lead/silver mines. Roads in the watershed are a potential source of sediment that can reduce the efficiency of the treatment process. Naturally occurring mineralization may be a non-point source of inorganic chemical contaminants. Based on the Meadow Creek water sampling history and information from the Interior Columbia Basin Ecosystem Management Project (ICBEMP) *Mining Related Hazard Potential* database, these mines are probably not a significant threat. While lead is a regulated contaminant, the mines in the Meadow Creek watershed were historically small or very small ore producers. For the lead mines in the Meadow Creek watershed the potential chemical hazard to humans, as ranked in the ICBEMP database, is 14 on a scale of 0 to 99, with 99 representing the greatest threat.

Figure 2. Bee Line Water Association Meadow Creek Delineation and Potential Contaminant Inventory.

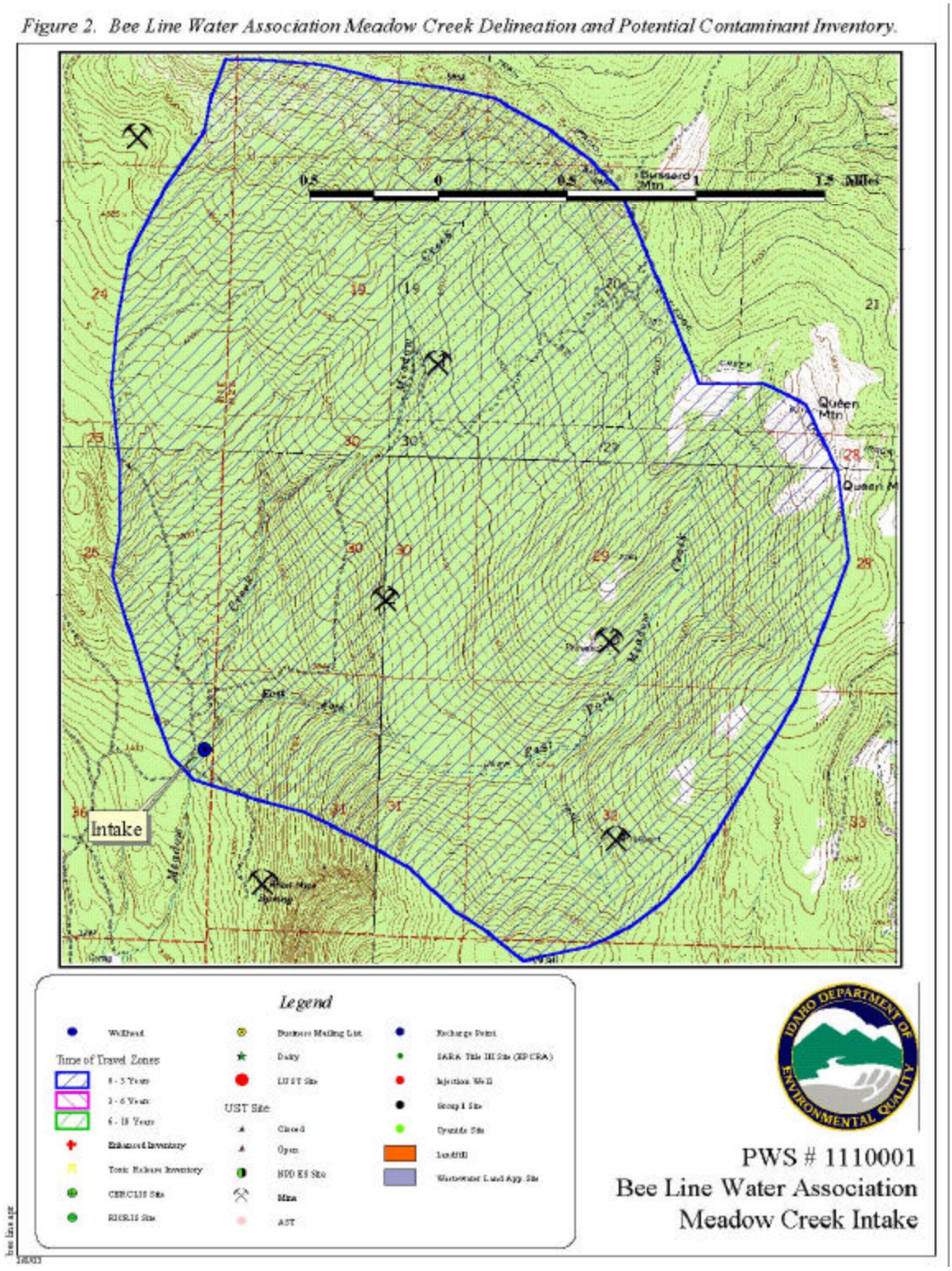
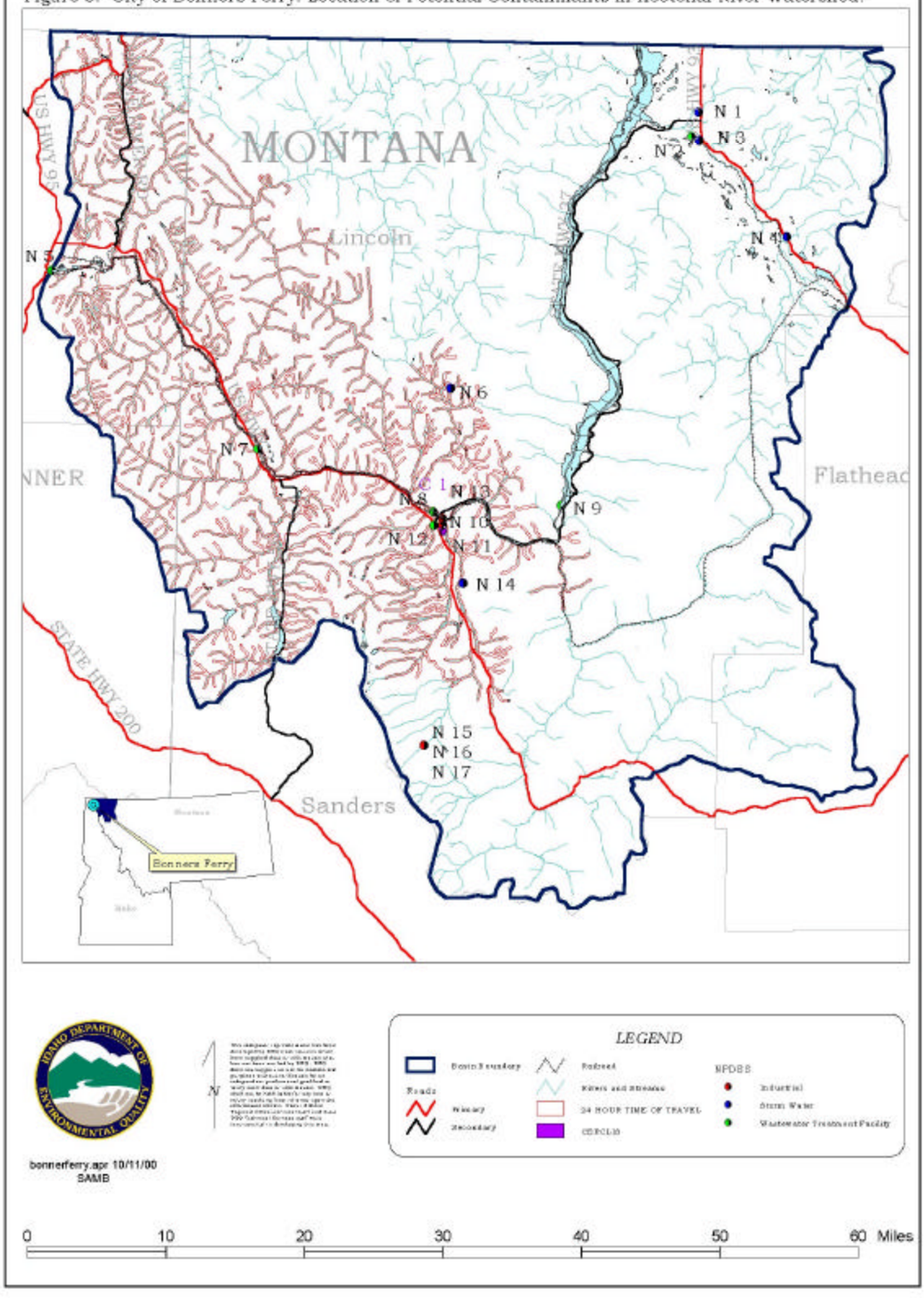


Figure 3. City of Bonners Ferry. Location of Potential Contaminants in Kootenai River Watershed.



Potential Contaminant Sources and Land Use Continued

Hops Wells. The 450 acres enclosed by the Hops wellfield delineation are also mostly forested with some agricultural land in the 0-3 year time of travel zone. The public water system file mentions cattle grazing in a field about 100 feet northwest of the active Bee Line well. No other potential sources of contamination are documented inside the delineation boundaries.

Historic Water Quality

Meadow Creek has had few water quality problems other than naturally occurring microbial contamination and corrosivity. Slow sand filtration and chlorination purify Meadow Creek water before it enters the distribution system. Because the water is moderately aggressive it is injected with stannous chloride which coats the pipes to prevent leaching of lead and copper from domestic plumbing.

Historically, the only water quality problem at the Hops wellfield was the detection of the solvent Dichloromethane in a concentration of 2.0 µg/l in a sample tested in October 1997. The Maximum contaminant Level for Dichloromethane is 5.0 µg/l. The concentration was below detection levels when the water was retested for volatile organics in October 2001. The sampling history of both sources is summarized on the tables below.

Table 1. Meadow Creek Chemical Test Results

Primary IOC Contaminants (Mandatory Tests)							
Contaminant	MCL (mg/l)	Results (mg/l)	Dates	Contaminant	MCL (mg/l)	Results (mg/l)	Dates
Antimony	0.006	ND	3/31/94, 4/18/95, 12/10/97, 12/8/98	Nitrate	10	ND to 0.197	12/13/82 through 10/23/01
Arsenic	0.01	ND	1/15/81 through 12/3/02	Nickel	N/A	ND	3/31/94 through 1/12/00
Barium	2	ND	1/15/81 through 12/3/02	Selenium	0.05	ND	1/15/81 through 12/8/98
Beryllium	0.004	ND	3/31/94 through 1/12/00	Sodium	N/A	1.97 to 26. 5	7/10/89 through 10/23/01
Cadmium	0.005	ND	1/15/81 through 12/8/98	Thallium	0.002	ND	3/31/94 through 12/8/98
Chromium	0.1	ND	1/15/81 through 1/12/00	Cyanide	0.02	ND	3/31/94, 4/18/95
Mercury	0.002	ND	1/15/81 through 1/12/00	Fluoride	4.0	ND to 0.1	12/13/82 to 10/23/01

Secondary and Other IOC Contaminants (Optional Tests)			
Contaminant	Recommended Maximum (mg/l)	Results	Dates
Sulfate		2.04 to 3.23 (mg/l)	3/23/92 to 1/12/00
Asbestos		ND	12/28/94. 2/12/01
Langelier Index		-3.12	4/18/95

Table 1. Meadow Creek Chemical Test Results continued

Secondary and Other IOC Contaminants (Optional Tests)			
Contaminant	Recommended Maximum (mg/l)	Results	Dates
Iron		ND to 0.08 mg/l	3/23/92, 9/15/97
Zinc		0.026 mg/l	3/23/92

Regulated and Unregulated Synthetic Organic Chemicals		
Contaminant	Results	Dates
29 Regulated and 13 Unregulated Synthetic Organic Compounds	None Detected	1/6/81 through 12/8/98

Regulated and Unregulated Volatile Organic Chemicals		
Contaminant	Results	Dates
21 Regulated And 16 Unregulated Volatile Organic Compounds	None Detected	1/6/81 through 12/8/98

Radiological Contaminants			
Contaminant	MCL	Results	Dates
Gross Alpha, Including Ra & U	15 pC/l	ND to 1.6 pC/l	1/14/80 to 11/1/00
Gross Beta Particle Activity	4 mrem/year	1.0 to 2.1 mrem	1/14/80 to 11/1/00

Table 2. Hops Wells Chemical Test Results

Primary IOC Contaminants (Mandatory Tests)							
Contaminant	MCL (mg/l)	Results (mg/l)	Dates	Contaminant	MCL (mg/l)	Results (mg/l)	Dates
Antimony	0.006	ND	9/4/84 through 10/25/01	Nitrate	10	ND to 0.5	9/4/84 to 12/3/02
Arsenic	0.01	ND	9/4/84 through 10/25/01	Nickel	N/A	ND	9/4/84 through 10/25/01
Barium	2	ND	9/4/84 through 10/25/01	Selenium	0.05	ND	9/4/84 through 10/25/01
Beryllium	0.004	ND	9/4/84 through 10/25/01	Sodium	N/A		9/4/84 through 10/25/01
Cadmium	0.005	ND	9/4/84 through 10/25/01	Thallium	0.002	ND	9/4/84 through 10/25/01
Chromium	0.1	ND to 0.002	9/4/84 through 10/25/01	Cyanide	0.02	ND	9/4/84 through 10/25/01
Mercury	0.002	ND	9/4/84 through 10/25/01	Fluoride	4.0	0.21 to0.5	9/4/84 through 10/25/01

Regulated and Unregulated Synthetic Organic Chemicals		
Contaminant	Results	Dates
29 Regulated and 13 Unregulated Synthetic Organic Compounds	None Detected	10/25/01

Regulated and Unregulated Volatile Organic Chemicals		
Contaminant	Results	Dates
21 Regulated And 16 Unregulated Volatile Organic Compounds	None Detected except as noted below	10/25/01
Dichloromethane (MCL = 5.0 µg/l)	2.0µg/l ND	10/24/97 10/25/01

Radiological Contaminants			
Contaminant	MCL	Results	Dates
Gross Alpha, Including Ra & U	15 pC/l	6.6 pC/l	12/7/01
Gross Beta Particle Activity	4 mrem/year	4.r pC/l	12/7/01

Final Susceptibility Ranking

The Bee Line Water Association Meadow Creek intake, like all surface water sources, is highly susceptible to microbial contamination. With the watershed above the intake undeveloped, the risk of the stream becoming contaminated with other classes of regulated contaminants is low.

The Hops wellfield well ranked moderately susceptible to all classes of regulated contaminants, mostly because of unknown risk factors associated with well construction and well site geology. The detection of any amount of a volatile organic chemical, such as the Dichloromethane found in the sample tested in October 1997, usually results in a high susceptibility ranking relative to VOCs. Given that Dichloromethane is a common solvent, and the concentration was below detection levels when the water was retested for volatile organics in October 2001, the presence of Dichloromethane in the sample was probably due to causes other than its presence in the ground water. Totals for system construction and hydrologic sensitivity along with the cumulative scores for land use and potential contaminant sites are shown on Table 3. Complete susceptibility analysis worksheets for the Bee Line water sources are in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 3. Summary of Bee Line Water Association Susceptibility Evaluation

Cumulative Susceptibility Scores						
Source Name	System Construction	Hydrologic Sensitivity	Contaminant Inventory			
			IOC	VOC	SOC	Microbial
Meadow Creek	0	NA	2	1	1	High
Hops Wells	4	5	2	2	2	4

Final Susceptibility Scores/Ranking				
	IOC	VOC	SOC	Microbial
Meadow Creek	2/Low	1/Low	1/Low	High
Hops Wells	9/Moderate	9/Moderate	9/Moderate	11/Moderate

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. Drinking water protection activities for Bee Line Water Association should focus on preventing sediment flow into Meadow Creek from roads, logging or other activity in the watershed. Periodic inspections of the watershed to monitor changes due to human activity or natural processes need to be part of the protection program. In addition to turbidity the watershed inspector needs to look for signs of illegal dumping, or the presence of dead game animals in or near the creek. Due to the fairly short time associated with the movement of surface waters, source water protection activities should be aimed at both short-term and long-term management strategies to counter any future contamination threats. Source water protection activities should continue to be coordinated with the U.S. Forest Service, the Idaho Department of Lands and any private landowners in the watershed.

At the Hops wellfield, grazing and other agricultural land use is probably the greatest threat to future water quality. Fencing the well lots to keep livestock at least 50 feet from the well head should be considered. The system may want to cover the wellheads and take other measures to secure the system from vandalism. It will be important for Bee Line to form ground water protection partnerships with landowners in the recharge zone. Many of them may not be aware that they are in a sensitive area were household and agricultural practices can have a negative impact on a public water supply.

A voluntary measure every system should implement is development of a water emergency response plan. There is a simple fill-in-the-blanks form available on the DEQ website to guide systems through the process.

Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: www.deq.state.id.us

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper of the Idaho Rural Water Association for assistance with drinking water protection strategies.

Idaho Rural Water Association (208) 343-7001

Website: www.idahoruralwater.com

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Haitjema, Henk. 2000. Time of Travel Capture Zone Delineations for Wellhead Protection. Prepared for Drinking Water Branch, Indiana Department of Environmental Management. Environmental Science Research Center, Indiana University, Bloomington, Indiana

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Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

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Attachment A

Bee Line Water Association
Susceptibility Analysis Worksheets

Surface Water Susceptibility Report

Public Water System Name : **BEE LINE WATER ASSN INC** Source: **MEADOW CREEK**

Public Water System Number : **1110001**

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1. System Construction		**Score**
Intake structure properly constructed and located	YES	0
Infiltration gallery	YES	0
Total System Construction Score		**0**

2. Potential Contaminant Source / Land Use			**IOC Score**	**VOC Score**	**SOC Score**	**Microbial Score**
Predominant land use type (land use or cover)	UNDEVELOPED FOREST		0	0	0	0
Farm chemical use high	NO		0	0	0	
Significant contaminant sources within 500 ' of stream and 1000 feet of intake	YES	Naturally occurring microbial contaminants				*
Sources of class II or III contaminants or microbials	NO		0	0	0	0
Agricultural lands within 500 feet	NO					
			0	0	0	0
OTHER contaminant sources IN WATERSHED	YES. Small inactive mines.		1	0	0	0
Sources of turbidity in the watershed	YES. Forest roads		1	1	1	1
Total Potential Contaminant Source / Land Use Score			**2**	**1**	**1**	**1**
3. Final Susceptibility Source Score			**2**	**1**	**1**	**1**
4. Final Source Ranking			Low	Low	Low	***High**

Ground Water Susceptibility

Public Water System Name : **BEE LINE WATER ASSN INC** Source: **HOPS WELLS**

Public Water System Number : **1110001** 1/3/03 2:15:29 PM

1. System Construction		SCORE			
Drill Date	UNKNOWN				
Driller Log Available	NO				
Sanitary Survey (if yes, indicate date of last survey)	YES 2002				
Well meets IDWR construction standards	UNKNOWN	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	UNKNOWN	2			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		**4**			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	CLAY BEDS OVER GRAVEL	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	UNKNOWN	2			
Total Hydrologic Score		**5**			
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		IOC Score	VOC Score	SOC Score	Microbial Score
Predominant Land Use--Entire Delineation	Undeveloped Forest	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		**0**	**0**	**0**	**0**
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)					
Contaminant sources present (Number of Sources)	Cattle	0	0	0	1
(Score = # Sources X 2) 8 Points Maximum		0	0	0	2
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		**2**	**2**	**2**	**4**
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		**0**	**0**	**0**	**0**
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Do irrigated agricultural lands occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		**0**	**0**	**0**	**0**
Cumulative Potential Contaminant / Land Use Score		**2**	**2**	**2**	**4**
4. Final Susceptibility Source Score		**9**	**9**	**9**	**11**
5. Final Well Ranking		Moderate	Moderate	Moderate	Moderate

POTENTIAL CONTAMINANT INVENTORY
List of Acronyms and Definitions

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ? Superfund? is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.